

10/751,349
Response to Office Action Dated 3/2/2005
Request for Continued Examination

Remarks/Arguments

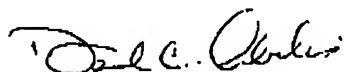
Applicant's preserve all of the arguments previously presented in applicants' response to the office action dated September 23, 2004. However, to forward prosecution applicants have amended independent Claims 1 and 12 to identify that the flaring at the lower face of the bottom nozzle comprises a series of a plurality of discrete chamfers with adjacent chamfers at different angles to the axial direction of said fuel rods. Independent Claim 13 has been amended to make it clear that the double inlet chamfer comprises two discrete chamfers respectively at different angles to the axis of the fuel rods. This should clearly distinguish from the argument that the normal curved inlet of venturi is made up of infinitely small segments that continuously change their angle to the axis of the fuel rods. Shallenberger clearly does not show a flared outlet nor a double chamfered inlet in the flow holes of a bottom nozzle of a fuel assembly. Arguendo, even if the Engineering Handbook citations are considered analogous art there is still no teaching in any of the references that would suggest that applying a venturi design to the flow holes of a nuclear fuel assembly bottom nozzle will not adversely impact the down stream flow pattern within the environment of a nuclear core. Applicants submit the Declaration of Michael Young, who by his credentials is an expert in reactor core fluid dynamics, to attest that the same would not be considered obvious to one of ordinary skill in the art in view of the teachings of the references.

The dependent claims have been amended to conform to the amendments in the independent claims. In response to the Examiner's argument in Paragraph 6 of the office action that a recitation of intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention over the prior art, it should be noted that none of the prior art cited by the Examiner applies a venturi profile in the flow holes of a bottom nozzle of a fuel assembly with the flow holes having a double chamfered inlet. This feature is not set forth as an intended use. It is the clearly claimed structure of applicants Claims 1 and 12, as is the double chamfered inlet of Claim 13.

The formal matters having been previously attended to and each of the rejections addressed, it is respectfully believed that this application is now in condition for allowance. Reconsideration, allowance and passage to issue of this application are therefore requested.

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Respectfully submitted,



Daniel C. Abeles
Registration No. 25,822
724.337.2768
Attorney for Applicant